Opening Statement

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U.S. House Committee on Science

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Good morning. I'd like to join Chairman Calvert in welcoming the witnesses to today's hearing. And I'd like to use my opening remarks to provide some context for today's hearing and explain why I think it is so important that we undertake some serious oversight in this area.

In short, I believe that ill-advised budget cuts and changes in NASA's priorities are putting the nation at risk of losing critical aeronautics research and development capabilities. These are capabilities that we need - now more than ever - if we are to improve the safety and reliability of our air transportation system while at the same time increasing its capacity to meet projected demand, increasing its efficiency and performance, and reducing its environmental and energy impacts.

Moreover, those same aeronautics R&D capabilities have the potential to contribute to our national defense and the security of our homeland - as has been amply demonstrated in the past. Yet, instead of investing *more* in the highly-productive aeronautics enterprise that has been built up within NASA and its predecessor organization over the last nine decades, NASA is in the process of *dismantling* those capabilities as it turns its attention elsewhere and reallocates resources to new ventures.

Because the budgetary erosion has been incremental, it is easy to underestimate the magnitude of the damage that is being done.

Perhaps the following statistics will help clarify the problem: In 1994, NASA spent more than ***$1.8 billion*** (in 2006 dollars) on aeronautics R&D. For FY 2007, on the other hand, NASA has requested just **$724 million**... or two and a half times less than the 1994 investment level.

Another statistic: The Administration's budget plan for NASA's aeronautics program would have aeronautics funding decline by 32 percent between FY 2004 and FY 2007 - with a continuing decline in purchasing power envisioned for at least the rest of the decade.

As Dr. Paul Kaminski, the Chair of the National Academies' Decadal Survey of Civil Aeronautics has warned: *"This budgetary trend will make it increasingly difficult for NASA to build a solid foundation for the future."*

Unfortunately, those budget cuts have been coupled to a restructuring of its aeronautics program that appears to be backing away from the highly productive partnership between government, industry, and academia that has long been the hallmark of NASA and its predecessor organization's aeronautics research programs. Instead, NASA has turned to a program more narrowly focused on fundamental research - the vast majority of which is to be carried out "in-house" by NASA.

While I applaud the strengthening of NASA's fundamental aeronautics research program - which had suffered in recent years due to the overall squeeze on NASA's aeronautics budget - that move unfortunately is coming at the expense of a broader vision of what NASA aeronautics R&D should be about.

Again, let me quote the words of several of the witnesses who testified at the July 18th hearing…

For example, Dr. Stephen Merrill, of the National Academies committee on Innovation Models for Aeronautics Technologies has stated: *"The committee concluded that support of fundamental research is important, but not sufficient to accomplish the Federal Government's legitimate role in advancing the air transportation system. There will remain a 'valley of death' between fundamental research results and systems innovation. Moreover, the support of technology users needed to sustain NASA's role in aeronautics will very likely continue to wane, undermining even its contributions to research."*

Dr. Michael Romanowksi of the Aerospace Industries Association noted that: *"…Both government and the general public depend on industry to incorporate the results of NASA's research into new systems and products that improve our nation's infrastructure and quality of life. Therefore, it is imperative that NASA's aeronautics research program includes a robust transitional research component that lays a solid foundation for industry to explore inventive ways to apply that research and perform the follow-on applied R&D necessary for market and public applications."*

And he added that under the restructuring of NASA's aeronautics program: *"Industry's role has been very limited. The new NASA aeronautics R&D program allowed only seven percent of the aeronautics R&D budget to be expended on external research contracts."*

Dr. Kaminski of the National Academies echoed those concerns in reporting on his committee's findings, namely that such a limited fraction devoted to external research *"would not adequately involve industry or academia"* or *"serve the best interests of NASA or the nation."*

However, my concerns extend beyond the lack of adequate participation by industry and academia in NASA's restructured aeronautics research program. They also go to my concerns that NASA's budgetary situation and its changed priorities are causing it to reduce its commitment to long-standing efforts to address national needs in aeronautics and aviation.

In recent congressional testimony on the Next Generation Air Transportation System [NGATS], the GAO witness stated that: *"…many experts told us that NASA's new focus on fundamental research creates a gap in the [NGATS] technology development continuum…. REDAC [the FAA's R&D Advisory Committee] further estimated that establishing the necessary [technology development] infrastructure in FAA could delay the implementation of NGATS by five years."*

That concerns me, as does the statement by FAA's Aircraft Safety advisory subcommittee, which recently cautioned that: *"[The] Subcommittee on Aircraft Safety is concerned that there may be inadequate resources in the FAA's budget for taking on safety-related research that NASA used to perform in the past but won't be funded to cover in the future."*

And finally, there was testimony at the Science Committee's recent hearing on Homeland Security issues about R&D related to Unmanned Aerial Vehicles (UAVs) - namely that: *"One might have expected NASA to pioneer in developing many of the technologies listed above, as UAVs have both military and commercial applications in addition to those of DHS. The UAV National Industry Team (UNITE) and the NASA ACCESS 5 Project were addressing the issues. With the reduction in the NASA aeronautics budget, ACCESS 5 was cancelled and it appears this will not happen."*

While I am sure that our NASA witness will make a good-faith effort to put the best face on what is going on, I am deeply concerned that NASA's aeronautics program is - to use the word of a previous witness before this Committee - on a path to being *"irrelevant"* to meeting our national needs. I don't believe we have passed the point of no return, but we are getting close, and the clock is ticking.

Let me close by once again reminding everyone of the policy statement contained in the NASA Authorization Act of 2005: *"Congress reaffirms the national commitment to aeronautics research made in the National Aeronautics and Space Act of 1958. Aeronautics research and development remains a core mission of NASA. Further, the government of the United States shall promote aeronautics research and development that will expand the capacity, ensure the safety, and increase the efficiency of the Nation's air transportation system, promote the security of the Nation, protect the environment, and retain the leadership of the United States in global aviation."*

If those are to be more than noble sentiments, Congress and the Administration together have a lot of work to do to get NASA's aeronautics program back on a healthy and productive path.

With that, I again want to welcome our witnesses, and I look forward to their testimony.